

REMARKS

Favorable reconsideration of this application in light of the following discussion is respectfully requested.

Claims 5-20 are presently active in this case. The present Amendment amends Claim 6 and adds new Claims 11-20.

In the outstanding Office Action, Claims 5-10 were rejected under 35 U.S.C. §103(a) as unpatentable over Starkey et al. (U.S. Patent No. 5,428,555, herein referred to "Starkey") in view of Roseman (U.S. Patent No. 5,038,318).

Claim 6 is amended to correct a minor informality. In order to vary the scope of protection recited in the claims, new Claims 11-20 are added. New Claim 11 recites that the automaton interface driver is configured to manage and optimize a dialog between the microcomputer and the automatons. New Claim 12 recites that the automaton interface driver is a software running on said microcomputer. New Claims 11-12 find non-limiting support in the disclosure as originally filed, for example at page 2, lines 21-32. New Claims 13-16 recite features regarding the automaton interface driver. These claims find support in Claim 7. New Claims 17-18 recite features regarding the automaton. These claims find support in Claim 5. New Claims 19-20 recites features regarding the sensor or actuator. These claims find support in Claim 6. Therefore, the changes to the claims are not believed to raise a question of new matter.¹

In response to the rejection of Claims 5-10 under 35 U.S.C. §103(a), Applicants respectfully request reconsideration of this rejection and traverse the rejection as discussed next.

Briefly recapitulating, Applicants' invention relates to a system with at least one automaton and a microcomputer connected to communicate with the automaton. The

¹ See MPEP 2163.06 stating that "information contained in any one of the specification, claims or drawings of the application as filed may be added to any other part of the application without introducing new matter."

microcomputer includes a spreadsheet program. *An automaton interface driver cooperates with an operating system* of the microcomputer to provide commands from the spreadsheet program and wherein the *spreadsheet program sends commands to the automaton interface driver*. The present invention improves the supervising and driving of automatons connected to a microcomputer, since the automaton interface driver can emulate the proprietary language for easy control of the automatons by a spreadsheet program.²

Turning now to the applied references, the Starkey patent discloses an interactive computer controlled management system for real-time data gathering and analysis of process information relating to a plurality of data sources in a facility and for controlling process functions of the data sources. However, Starkey fails to disclose an automaton interface driver that cooperates with an operating system to *provide commands from a spreadsheet program*. The outstanding Office Action purposes to modify the Starkey system by incorporating certain features from the Roseman patent and that it would have been obvious to make such a modification.

Specifically, the outstanding Office Action rejects Applicants' Claims 5-10 based on the proposition that it would have been obvious to modify Starkey by importing Roseman's automaton interface driver that allegedly cooperates with the operating system to provide commands from the spreadsheet program and to receive data from the automaton through the communication line and microcomputer input, wherein the spreadsheet program sends commands to the automaton interface driver.³ Applicants respectfully submit, however, that Roseman fails to disclose the claimed automaton interface driver that cooperates with the operating system to provide commands from the spreadsheet program, wherein the spreadsheet program sends commands to the automaton interface driver, as next discussed.

² See Applicants' specification in the Abstract.

³ See outstanding Office Action from page 3, line 19 to page 4, line 5.

The outstanding Office Action relies on the Roseman patent's text at column 3, lines 42-51. This passage of the Roseman patent teaches that a spreadsheet program in a personal computer that facilitates the configuring of a PLC network with a central control of the manufacturing operation. Roseman further teaches that the operator controls the PLCs connected to a network through the commercially available, general purpose spreadsheet program. However, Roseman also teaches that a general purpose spreadsheet program performs information transfers to and from addressable registers of a PLC *without transfers through a specially written device driver program*.⁴ Therefore, Roseman teaches away from Applicants' claimed system which includes an automaton interface driver that emulates the proprietary language (Claims 7, 13-16), for example to control the automatons (Claim 13). Reading the Roseman patent, a person of ordinary skill in the art would understand that a general purpose spreadsheet program communicating with the PLC register without a specially written device driver program *is not an automaton interface driver* cooperating with the operating system to provide commands from the spreadsheet program, *wherein the spreadsheet program sends commands to the automaton interface drive*, as recited in Applicants' Claim 5. As explained in Roseman, the spreadsheet program 26 and 28 sends commands to a command register 116 of an interface circuit card 24.⁵ Roseman also teaches that a commercially available general purpose spreadsheet program performs the message transfers to the address registers of the PLC.⁶

In other words, Roseman's spreadsheet program sends commands to the command register 116 of an interface circuit card 24, and does not use an automaton interface driver that cooperates with an operating system to *provide commands from a spreadsheet program*. Accordingly, the features of Roseman identified by the outstanding Office Action *are not* an

⁴ See Roseman, for example at column 3, lines 35-41.

⁵ See Roseman, for example in Figs. 6-8.

⁶ See Roseman, for example at column 8, lines 50-52.

automaton interface driver that cooperates with an operating system to *provide commands from a spreadsheet program*, as would be required to meet Applicants' claimed system.

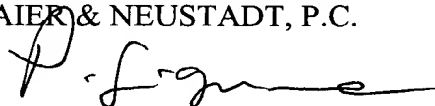
Therefore, even if the combination of the Starkey and Roseman patents is assumed to be proper, the combination fails to teach every element of the claimed invention. Accordingly, Applicants respectfully traverse, and request reconsideration of, the rejection of Claims 5-10 based on these patents.⁷

Consequently, in view of the present amendment, no further issues are believed to be outstanding in the present application, and the present application is believed to be in condition for formal Allowance. A Notice of Allowance for Claims 5-20 is earnestly solicited.

Should the Examiner deem that any further action is necessary to place this application in even better form for allowance, the Examiner is encouraged to contact Applicants' undersigned representative at the below listed telephone number.

Respectfully submitted,

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⁷ See MPEP 2142 stating, as one of the three "basic criteria [that] must be met" in order to establish a *prima facie* case of obviousness, that "the prior art reference (or references when combined) must teach or suggest all the claim limitations," (emphasis added). See also MPEP 2143.03: "All words in a claim must be considered in judging the patentability of that claim against the prior art."